

ABSTRACT

In an exemplary communication system, a multiplicity of mobile terminals are to share a communication link with a host processor communicating through base transceivers. The mobile terminals evaluate communication signals being transmitted to one or more of the mobile transceivers and according to the evaluation of such signals, each mobile terminal independently selects a relatively high data rate or a lower more conservative data rate for communication with the host processor. The mobile terminal enters a dormant state after a fixed period elapses during which the mobile unit is not engaged in communication with the base station. Periodically, the mobile terminal reenters active state in receive mode for a brief interval and if no polling signal or other message directed to the mobile terminal is present, the mobile terminal returns to dormant state. When a signal is directed to the mobile terminal, the mobile terminal remains in active receive mode until a fixed period after a communication session is completed and then returns to dormant/active cycling. A base station utilizing a dormant polling protocol transmits polling sequences to a plurality of remote transceivers during periods of heavy loading. During periods of low loading, the base station stops polling and enters into a dormant state, listening for communication request from the remote transceivers. Upon receiving such a request, the base station immediately responds by servicing the requesting remote transceiver. In this way, the base station provides optimized utilization of the communication channel during periods of heavy and light loading conditions.